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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,043	02/26/2004	Thomas Klotzboecher	R 305267	3292
47988	7590	09/29/2010		
WALTER OTTESEN PO BOX 4026 GAITHERSBURG, MD 20885-4026				
EXAMINER				
PECHIE, JORGE O				
ART UNIT		PAPER NUMBER		
3664				
MAIL DATE		DELIVERY MODE		
09/29/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/786,043

**Applicant(s)**

KLOTZBUECHER ET AL.

**Examiner**

Jorge O. Peche

**Art Unit**

3664

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Receipt is acknowledged of Applicant's argument/remarks filed on August 24, 2010, claims 21-30 are pending and an action on the merits is as follows.

Applicant's arguments with respect to claims 21-30 have been fully considered but are moot in view of a new ground(s) of rejection. Applicant has amended claims 21-23 and 30, and cancelled claims 11-20. The rejection of claims 21 and 30 under 35 U.S.C. 112, first paragraph, had been withdrawn.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 21 and 30 recite the limitation "the slope" in page 2, line 19 and page 5, line 5. There is insufficient antecedent basis for this limitation in the claim. Claims 21 and 30 do not provide explicit antecedent basis for the above term.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21 and 28-30 are rejected under 35 U.S.C. 102(b) as being unpatentable over Kato et al. (Pub. No.: US 2003/0019278 A1).

Regarding **claims 21** and **30**, Kato et al. disclose an accelerator pedal apparatus and method for adjusting accelerator pedal apparatus (*an instantaneous degree of displacement*). The methods comprising the steps of:

- realizing various output value corresponding to the fully closed, opened, and kick-down positions of the accelerator pedal (2) (different operator-controlled functions) in dependence upon different resilient engaging member (3) constants (the degree of displacement) as different type of forces are applied to the accelerator pedal (2) (operator controlled element) (see page1, par. 5 & 7; page 3, par. 35-36; page 4, par. 44; Figures 1A-1C).
- actuating accelerator pedal (2) (*actuation of said operation-controlled element*) against the resilient engaging member (3) force (spring force) with two

degree of resilient engaging member being characterized by two different resilient engaging member constants (different spring constants) as it is depicted in Figure 1A-1B and 1C-1D respectively. At Figures 1B, the acceleration pedal (2) encounters the natural spring constant (the spring constant is a measure of how stiff the spring is; a force constant) of the resilient engaging member (3) (first spring constant). At Figures 1C-1D, the acceleration pedal (2) encounters a new combined force constant (spring constant); first, the natural spring constant of the resilient engaging member (3) and, second, the resistance of a stepped portion (4b) (a new force constant) (second spring constant) (see page 3, par. 34-37; page 4, par. 38-41; Figures 1A-1D and 2).

- providing an acceleration pedal position sensor (6) (*a sensor*) to detect the displacement of acceleration pedal (2) (*said element*) and output value (11a) (a signal value) proportional to the displacement of acceleration pedal (2) (*said element*) (see page 5, par. 46 – 48; Figures 3-5).
- determining an output signal (14a) containing a sensor output value slope (Figure 2) (*the slope*) characterizing that one of resilient engaging member constants (*spring constant*) corresponding to an instantaneous degree of displacement of the acceleration pedal (2) (*said element*) (see page 5, par. 46 – 48; Figures 3-5).
- detecting at least one of the fully closed, opened, or kick-down position of the accelerator pedal (2) (*various operator-controlled functions of the operator-controlled element*) in dependence upon resilient engaging member constant

(slope which characterizes the spring constant) assigned to the instantaneous degree of resilient engaging member. Figure 1D depicts stop vicinity position for the accelerator pedal (2) (see page1, par. 5 & 7; page 3, par. 34-36; page 4, par. 44; Figures 1A-1C).

- supplying output signal (14a) containing the sensor output value slope (Figure 2) (said slope) to a correction output value unit (12) (a detector) for detecting one of the operator-controlled function of the acceleration pedal (2) (said element) in dependence upon output signal (14a) (said slope) (see page 5, par. 46 – 48; Figures 3-5).

Regarding **claim 28** refers to **claim 21**.

Regarding **claim 29**, Kato et al. disclose a method for detecting at least one of the fully closed, opened, or kick-down position of the accelerator pedal (2) (various operator-controlled functions) in dependence upon resilient engaging member constant assigned to the instantaneous degree of resilient engaging member. In addition, Kato et al disclose a method for detecting the kick-down position of the accelerator pedal (2) (at least one operator-controlled function) when its signal is detected several times within the kick-down position region (see page1, par. 5 & 7; page 3, par. 35-36; page 4, par. 44; Figures 1A-1C & 2).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al. (Pub. No.: US 2003/0019278 A1) in view of Kuretake (Patent No.: US 6,293,249 B1).

Regarding **claims 22-23**, Kato et al. disclose a method comprising the steps of:

- Detecting a continuous operational angular position of the accelerator pedal (2) and pressing force applied to the acceleration pedal (degree of displacement) by utilizing a pedal position measuring means (13) (see page 5, par. 47-48; Figures 2-3B).
- Causing the pedal position measuring means (13) to generate a measurement signal in dependence upon a continuous operation angular position of the accelerator pedal (2) and pressing force applied to the acceleration pedal (see page 5, par. 47-48; Figures 2-3B).

However, Kato's invention fails to disclose a method comprising the steps of determining a time-dependent course of said measurement signal; and, selecting a slope of said time-dependent course of said measurement signal as said slope characterizing the spring constant; and, detecting said at least one operator-controlled function in dependence upon the slope of said measurement signal.

However, Kuretake teaches a unit for controlling electronically controlled throttle value comprising the step of determining the time dependant course of an amount of depression of acceleration pedal (see col. 6, lines 11-15; col. 7, lines 1-5; Figure 3A).

As Kato teaches a method for calculating and depicting the pedal pressing force and sensor output value in accordance to the pedal position (see page 5, par. 47-48; Figure 2), and Kuretake teaches a method for calculating and depicting the time dependant course of an amount of depression of acceleration pedal (see col. 6, lines 11-15; col. 7, lines 1-5; Figure 3A), it would have been obvious to one of ordinary skill in the art at the time was made to convert the pedal position values into a time reference scale as it is implemented in Kuretake's reference by simply calculating how fast the accelerator pedal takes to move from one point to another or how fast its rotational angle change.

Doing so would enhance an accelerator pedal apparatus capable to electronically control a throttle valve.

Furthermore, Kato, in view of Kuretake, teaches a method for detecting a various output values corresponding to the fully closed, opened, and kick-down positions of the accelerator pedal (2) (various operator-controlled functions) in dependence upon a



slope of time-dependant, which can be calculated from the accelerator pedal position, of the continuous operational angular position of the accelerator pedal (2) (see page 5, par. 47-48; Figures 2-3).

In addition, Kato, in view of Kuretake, teaches a method for detecting at least one of the various output value corresponding to the fully closed, opened, and kick-down positions of the accelerator pedal (2) (various operator-controlled functions) when the slope of the time-dependent course of the continuous operational angular position of the accelerator pedal (2) lies within the fully open position and kick-down position range of the continuous operational angular position of the accelerator pedal (2) (pre-given region) (see Figure 2).

Regarding **claim 24**, Kato teaches a fully open - kick-down position region to be defined by a measured and correction values (threshold values) (see page 6, par. 49; Figure 4).

Regarding **claim 25-27**, Kato, in view of Kuretake, teaches a method for selecting a fully open - kick-down position region to be defined by a measured and correction values so that the pedal position signal, which can be converted into a time-dependant scale, changes not only via its angle of rotation (via an automatic reset), but also via the resilient engaging member constant of the accelerator pedal. The spring constant value of the resilient engaging member varies as the applied force on the accelerator pedal (2) changes (see (see page1, par. 5 & 7; page 3, par. 35-36; page 4, par. 44; page 6, par. 49; Figures 1A-1C & 24).

***Response to Argument***

In the Applicant's arguments filed on August 24, 2010, with respect to the rejections of claims 21 and 28-30 under 35 U.S.C. 102(b) as being unpatentable over Kato et al. (Pub. No.: US 2003/0019278 A1) and the rejection of claims **22-27** under 35 U.S.C. 103(a) as being unpatentable over Kato et al. (Pub. No.: US 2003/0019278 A1) in view of Kuretake (Patent No.: US 6,293,249 B1) have been fully considered but are not persuasive.

Regarding Applicant's arguments with respect to the claims 21 and 30 (page 9, par. 2; page 10, par. 2; page 11, par. 4), the Examiner respectfully disagrees. A thought reading of Kato et al. reveals that what is argued is clearly supported. Applicant should consider that the "predetermined operation position of the accelerator pedal" is calculated based on an "angular position data of the accelerator pedal" and a "pressing force applied to the accelerator pedal," wherein an accelerator pedal (2) actuates against the resilient engaging member (3) with two degree of resilient engaging member being characterized by two different resilient engaging member constants (different spring constants) as it is depicted in Figure 1A-1B and 1C-1D respectively . At Figures 1B, the acceleration pedal (2) encounters the natural spring constant (the spring constant is a measure of how stiff the spring is; a force constant) of the resilient engaging member (3) (first spring constant). At Figures 1C-1D, the acceleration pedal (2) encounters a new combined force constant (spring constant); first, the natural spring constant of the resilient engaging member (3) and, second, the resistance of a

stepped portion (4b) (a new force constant) (second spring constant) (see page 3, par. 34-37; page 4, par. 38-41; Figures 1A-1D and 2). Applicant is kindly invited to consider the references as a whole, and for this argument, concentrate on Kato et al.' page 3, par. 34-37; page 4, par. 38-41; page 5, par. 46-48; Figures 1A-1D and 2. Applicant is kindly invited to view the above ground of rejection.

### **Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge O. Peche whose telephone number is (571)270-1339. The examiner can normally be reached on 8:30 am - 5:30 pm Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi H. Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jorge O Peche/

Examiner, Art Unit 3664

/KHOI TRAN/

Supervisory Patent Examiner, Art Unit 3664